

**REMARKS**

Favorable reconsideration and allowance of the subject application are respectfully requested in view of the following remarks.

**Summary of the Office Action**

Claims 1, 3-5, 7-10 and 21-28 stand rejected under 35 U.S.C. §102(b) as being anticipated by *Tsumura et al.* (U.S. Patent No. 5,500,537).

Claims 11-15, 17-20 and 29-37 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over *Figures 1 and 2 of the present application* in view of *Tsumura et al.*

**Summary of the Response to the Office Action**

Applicant adds new claims 38-41 by this amendment. Accordingly, claims 1, 3-5, 7-15 and 17-41 are currently pending.

**Telephonic Interview with the Examiner**

Applicant thanks the Examiner for granting the telephonic interview with the undersigned on August 27, 2003. Pursuant to 37 C.F.R. §1.133(b), Applicant respectfully provides the following recordation of the substance of the interview. During the interview, Applicant's undersigned representative discussed the ground of rejections set forth in the Office Action dated February 28, 2003, and presented the differences between the primarily cited reference, *Tsumura et al.* (U.S. Patent No. 5,500,537) and the present invention. In particular, Applicant's undersigned representative discussed the arrangement shown in FIG. 7 of *Tsumura et al.* in light of Applicant's claimed combinations. For instance, Applicant's undersigned representative emphasized, *inter alia*, that the arrangement shown in FIG. 7 of *Tsumura et al.* includes a FET portion (10) and a liquid crystal portion (20), and that the electrode (23) of *Tsumura et al.* is a

part of the liquid crystal portion (20), and not a part of a switching element. Also see, for example, column 11, lines 14-40 of *Tsumura et al.*

The Examiner agreed to consider these teachings of *Tsumura et al.*

**Claim Rejections Under 35 U.S.C. §102(b)**

Claims 1, 3-5, 7-10 and 21-28 stand rejected under 35 U.S.C. §102(b) as being anticipated by *Tsumura et al.* This rejection is respectfully traversed for at least the following reasons.

Applicant respectfully submits that *Tsumura et al.* does not anticipate claims 1, 3-5, 7-10 and 21-28 because *Tsumura et al.* does not disclose all of the features of these claims. For instance, it is respectfully submitted that *Tsumura et al.* fails to teach or suggest the claimed combination as set forth in independent claim 1 including at least “a pair of opposing gate electrodes sandwiching the insulative film and the organic semiconductor layer.” In addition, it is respectfully submitted that *Tsumura et al.* fails to teach or suggest the claimed combination as set forth in independent claim 21 including at least “a pair of intermediate electrodes disposed within the organic semiconductor layer so as to confront each other,” and “a gate arrangement for applying an electric field to the organic semiconductor layer between the intermediate electrodes.”

The Office Action asserts that FIG. 7 of *Tsumura et al.* shows a pair of opposing gate electrodes (12, 23) sandwiching the insulative film and the organic semiconductor layer, as set forth in Applicant’s claimed combinations. However, Applicant respectfully submits that the electrode (23) of *Tsumura et al.* is a component of a liquid crystal device rather than an organic thin-film switching device. Applicant respectfully submits that *Tsumura et al.*’s FIG. 7 partially shows a liquid crystal display that “includes a FET portion 10 connected in series with a liquid

crystal portion 20.” Column 11, lines 14-17 of *Tsumura et al.* In particular, the liquid crystal portion (20) includes an electrode (21) formed on an insulating film (13) formed on a substrate (11), a liquid crystal layer (22) formed on the electrode (21), a transparent electrode (23) formed on the liquid crystal layer (22) and a glass plate (24) formed on the transparent electrode (23). See column 11, lines 33-40 of *Tsumura et al.* In addition, the FET portion (10) includes a gate electrode (12) formed on the substrate (11), an insulating film (13) formed on the substrate (11) and the gate electrode (12), a source electrode (14) and a drain electrode (15) formed apart from one another on the insulating film (15), and a polymer film (16) formed between the source electrode (14) and the drain electrode (15). Thus, it is respectfully submitted that only the electrode 21 of the liquid crystal portion (20) is electrically connected to the drain electrode (15) of the FET portion (10) as shown in FIG. 7.

In addition, at least because the liquid crystal portion (20) of *Tsumura et al.* is connected in series to the FET portion (10), Applicant respectfully submits that the transparent electrode (23) of the liquid crystal portion (20) cannot be electrically connected to any electrode in the FET portion (10). Thus, the transparent electrode (23) further cannot exert any influence on the gate electrode (12) of the FET portion (10) at least because of a great insulative gap therebetween (for example, the materials for the polymer film 16 and the liquid crystal layer (22) are dielectrics).

Accordingly, Applicant respectfully submits that the transparent electrode (23) shown in FIG. 7 of *Tsumura et al.* does not belong to a pair of opposing gate electrodes sandwiching the insulative film and the organic semiconductor layer or a gate arrangement for applying an electric field to the organic semiconductor layer between the intermediate electrodes, as set forth in Applicant’s claimed combinations. Thus, it is respectfully submitted that *Tsumura et al.* fails

to teach or suggest the claimed combination as set forth in independent claim 1 including at least “a pair of opposing gate electrodes sandwiching the insulative film and the organic semiconductor layer.” In addition, it is respectfully submitted that *Tsumura et al.* fails to teach or suggest the claimed combination as set forth in independent claim 21 including at least “a pair of intermediate electrodes disposed within the organic semiconductor layer so as to confront each other,” and “a gate arrangement for applying an electric field to the organic semiconductor layer between the intermediate electrodes.”

M.P.E.P. § 2131 states “[t]o anticipate a claim, the reference must teach every element of the claim.” Applicant respectfully submits that since *Tsumura et al.* does not teach or suggest all of the features of independent claims 1 and 21, *Tsumura et al.* does not anticipate claims 1 and 21. Further, since claims 3-5, 7-10 and 22-28 depend from claims 1 and 21, it is respectfully submitted that *Tsumura et al.* also does not anticipate claims 3-5, 7-10 and 22-28. Accordingly, withdrawal of the rejection of claims 1, 3-5, 7-10 and 21-28 under 35 U.S.C. §102(b) is respectfully requested.

#### **Claim Rejections Under 35 U.S.C. §103(a)**

Claims 11-15, 17-20 and 29-37 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over *Figures 1 and 2 of the present application* in view of *Tsumura et al.* This rejection is respectfully traversed for at least the following reasons.

It is respectfully submitted that *Applicant’s Figures 1 and 2*, to the extent it is alleged as prior art, fail to teach or suggest the claimed combination as set forth in independent claim 11 including at least “a pair of opposing gate electrodes sandwiching the insulative film and the organic semiconductor layer,” and the claimed combination as set forth in independent claim 29 including at least “a pair of intermediate electrodes disposed within the organic semiconductor

layer so as to confront each other,” and “a gate arrangement for applying an electric field to the organic semiconductor layer between the intermediate electrodes.”

Further, in light of the foregoing arguments with respect to the 35 U.S.C. §102(b) rejections, it is respectfully submitted that *Tsumura et al.* also fails to teach or suggest the claimed combination as set forth in independent claim 11 including at least “a pair of opposing gate electrodes sandwiching the insulative film and the organic semiconductor layer,” and the claimed combination as set forth in independent claim 29 including at least “a pair of intermediate electrodes disposed within the organic semiconductor layer so as to confront each other,” and “a gate arrangement for applying an electric field to the organic semiconductor layer between the intermediate electrodes.”

Accordingly, since *Applicant's Figures 1 and 2* and *Tsumura et al.*, whether taken separately or in combination, fail to teach or suggest each and every element set forth in independent claims 11 and 29, it is respectfully submitted that *Applicant's Figures 1 and 2* in view of *Tsumura et al.* do not render claims 11 and 29 unpatentable. Since claims 12-15, 17-20, and 30-37 depend from claim 11 or claim 29, it is respectfully submitted that *Applicant's Figures 1 and 2* in view of *Tsumura et al.* also do not render claims 12-15, 17-20, and 30-37 unpatentable. Accordingly, withdrawal of the rejection of claims 11-15, 17-20, and 29-37 under 35 U.S.C. §103(a) is respectfully requested.

#### **New Claims 38-41**

Applicant has added new claims 38-41 to differently define the invention. Applicant respectfully submits that claims 38-41 are allowable at least because of their dependence from claims 1, 11, 21 and 29, respectively.

**Conclusion**

In view of the foregoing, withdrawal of the rejections and allowance of the pending claims are earnestly solicited. Should there remain any questions or comments regarding this response or the application in general, the Examiner is urged to contact the undersigned at the number listed below.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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